## Amendments to the Claims

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21. (Currently amended) A method for preparing a $CO_2$-rich gas stream and a $H_2$-rich gas stream, which comprises:

a) feeding natural gas and $H_2O$ into a reforming reactor to form a gas mixture,

b) subjecting the gas mixture to a one-step reforming reaction under supercritical heat and pressure conditions for water to form a reformed gas mixture; and

c) separating the reformed gas mixture into a $H_2$-rich gas stream and a $CO_2$-rich gas ~~stream~~ stream, wherein the separated $CO_2$-rich gas stream has a pressure within a range from 20 to 200 bar.

22. (Previously presented) The method according to claim 21, wherein the temperature in the reforming reactor is from about 400°C to about 600°C.

23. (Previously presented) The method according to claim 21, wherein the pressure in the reforming reactor is from about 200 to about 500 bar.

24. (Previously presented) The method according to claim 22, wherein the pressure in the reforming reactor is from about 200 to about 500 bar.

25-27. (Cancel)

28. (Previously presented) The method according to claim 21, wherein the gas mixture in the reforming reactor is passed over a catalyst bed.

29. (Previously presented) The method according to claim 22, wherein the gas mixture in the reforming reactor is passed over a catalyst bed.

30. (Previously presented) The method according to claim 23, wherein the gas mixture in the reforming reactor is passed over a catalyst bed.

31. (Cancel)

32. (Previously presented) The method according to claim 21, wherein the reaction in the reforming reactor is carried out without a catalyst.

33. (Previously presented) The method according to claim 22, wherein the reaction in the reforming reactor is carried out without a catalyst.

34. (Previously presented) The method according to claim 23, wherein the reaction in the reforming reactor is carried out without a catalyst.

35. (Cancel)

36. (Previously presented) The method according to claim 28, wherein the reaction in the reforming reactor is carried out without a catalyst.

37. (Previously presented) The method according to claim 21, which further comprises injecting the separated $CO_2$-rich gas stream into marine formations.

38. (Previously presented) The method according to claim 21, which further comprises transporting the separated $H_2$-rich gas stream for hydrogenation.

39. (Previously presented) The method according to claim 21, which further comprises converting the separated $H_2$-rich gas stream to energy / fuel in fuel cells.

40. (Previously presented) The method according to claim 21, which further comprises transporting the separated $H_2$-rich gas stream for production of electricity.